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in the following listed application(s) or patent(s) for which the issue fee has been paid.

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Respectfully Submitted,



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(12) **United States Patent**
Yamazaki et al.

(10) **Patent No.:** **US 7,633,471 B2**
(45) **Date of Patent:** **Dec. 15, 2009**

(54) **LIGHT-EMITTING DEVICE AND ELECTRIC APPLIANCE**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 463 days.

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G09G 3/32 (2006.01)

(52) **U.S. Cl.** **345/83**

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See application file for complete search history.

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(57) **ABSTRACT**

An inexpensive light emitting device capable of displaying a bright image and an electric appliance using the light emitting device. In the light emitting device having a pixel portion and a driver circuit formed on one insulating member, all of semiconductor elements for the pixel portion and the driver circuit are formed by n-channel semiconductor elements, thereby enabling the manufacturing process to be simplified. Each of light-emitting elements provided in the pixel portion emits light in such a direction that most of the light travels away from the insulating member, so that substantially the whole of the pixel-forming segment electrode (corresponding to a cathode of an EL element) is formed as an effective light-emitting area. Therefore, a low-priced light-emitting device capable of displaying a bright image can be obtained.

30 Claims, 16 Drawing Sheets

